

REMARKS

Claims 1-4, 7-10, 20-24, 27, 38, and 44-45 have been amended. Claims 5, 11-19, 28-37, and 39-41 have been canceled. No new claims have been added. Claims 1-4, 6-10, 20-27, 38, and 42-45 are pending.

Claims 7-10 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite due to a lack of sufficient antecedent basis with respect to "the calculated data transfer." Claims 7-10 have been amended. Accordingly, the rejection to claims 7-10 should be withdrawn.

Claims 1-3, 6, and 24-27 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Barrett (U.S. Patent No. 5,908,467) in view of Tokunaga (U.S. Patent No. 5,968,132). Claim 4 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Barrett in view of Tokunaga and Leermakers (U.S. Patent No. 6,928,468). Claims 7-10 and 20-23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Barrett in view of Tokunaga and Kraft (U.S. Patent No. 6,832,239). These rejections are respectfully traversed.

Claim 1 recites, *inter alia*, "the server measuring one or more data transfer rates for the exchanging operation; ... utilizing the one or more measured data transfer rates and the size of the selected one or more application programs to estimate a length of time required to download the one or more application programs onto the wireless device; and the wireless device providing an quantitative output of the estimated time."

Claim 20 recites, *inter alia*, "during the receiving by the one or more wireless devices, measuring, at the one or more servers, one or more data transfer rates; utilizing the one or more measured data transfer rates and the size of the selected one or more application programs to estimate a length of time required to download the one or more application programs onto the wireless device; and sending the time estimate to the wireless device; wherein said time estimate is quantitative."

Claim 24 recites, *inter alia*, "measuring, at the server, one or more data transfer rates for the exchanging operation; ... utilizing the one or more measured data transfer rates and the size of the selected one or more application programs to estimate a length of time required to

download the one or more application programs onto the wireless device; ... providing an output of the estimated time; and ... wherein said estimated time is quantitative.”

Claim 27 recites, *inter alia*, “during the receiving, measuring, at the server, one or more data transfer rates for the exchanging operation; ... utilizing the one or more measured data transfer rates and the size of the selected one or more application programs to estimate a length of time required to download the one or more application programs onto the wireless device; providing an quantitative output of the estimated time.”

Barrett discloses a system for use with Internet browsers, where a display of a web page is altered such that for each hyperlink which appears on a web page, a background process running during an idle time of the browser reformats the displayed page by inserting a first and a second indicia surrounding the hyperlink. More specifically, the first indicia is a graphical representation of a link delay status of the network link between the web browser and the web server, and the second indicia is a graphical indication of the size of the object which is the target of the hyperlink. Examples of the first (58, 60, 62) and second (64, 66, 68) indicia, and their use surrounding hyperlinks (50, 52, 54) are illustrated by Fig. 5.

Notably, the link delay status is determined from analyzing the behavior of a “test message” which is sent by the browser to the web server. Column 5, lines 35-50. As recognized by the Office Action, the independent claims require the server to measure a data transfer rate of the link. Further, while the combination of the first indicia (which provide an qualitative estimate of the size of the object targeted by a hyperlink and the delay) and the second indicia (which provides a qualitative estimate of the delay associated with the network between the browser and the web server), provides information from which a user of the browser can form an estimate of the time delay required to transfer the target of a hyperlink for viewing on the browser, this estimate is based upon the user’s analysis of two qualitative factors and thus the mental estimate formed by the user is necessarily also a qualitative estimate.

Tokunaga discloses an image data communication apparatus which is designed to transmit video images over a network link without overloading the capacity/bandwidth of the network link. See column 1, lines 57-64; See column 2, lines 39-45. The Office Action at page 4 states the Tokunaga discloses that “a server can exchange data files with a receiving device and

can measure a data transfer rate for the exchanging operation,” and cites to column 14, line 53 – column 15, line 19. The cited passage of Tokunaga discusses Fig. 10, in which it a image transmitting side computer 21 is illustrated to send “survey data” to a image receiving side computer 22, which sends the received “survey data” back to the image transmitting side computer 21 (Fig. 10, step S1). During step S1, the elapse time for the “survey data” to make its round trip transit is recorded, so that in steps S2 and S3, an estimate of available network bandwidth can be calculated, and it is this estimated available bandwidth that is used for transmitting video in step S4.

The Office Action alleges that one skilled in the art and familiar with both Barrett and Tokunaga would be find it obvious to arrive at the present invention and would be so motivated because Tokunaga’s teaching of using a server to exchange data files and to measure a data transfer rate would be “more accurate,” and cites as support for this proposition, Tokunaga at column 15, lines 16-19. It is respectfully asserted that the Office Action is in error, for several reasons.

First, Tokunaga does not stand for what the Office Action has alleged. In fact, Tokunaga discloses a method in which data is sent on a round trip, and thus data is sent by both the server (computer 21) and client (computer 22). While applicants’ representative acknowledges that the available bandwidth is calculated by the server, the nature of the data transmission is different in Tokunaga. A combination of both references would result in a system which transmits data on a round trip.

Second, the Office Action alleges that having a server measure the data transfer rate would be more accurate than having the client perform the same calculation. The portion of Tokunaga cited for support is quoted below:

The network transmitting unit 40 further divides the data length (32 octets in this case) of the survey data by the measured elapsed time so as to obtain a data transfer rate as a current traffic value (Step S2).

Tokunaga at column 15, lines 16-19.

As is plainly evident by the reproduced passage, there is no statement regarding accuracy. The undersigned submits that there is no reason why a clock on the client would not be as accurate as a clock on the server, and that either the server or client could produce an accurate measurement.

Further, it should be noted that Tokunaga requires the file to make a round trip transit. As such, Tokunaga appears to be less accurate because there is no disclosure regarding accommodating for the processing time required to buffer the incoming file or data stream and the time required to re-transmit the file/data stream from the client back to the server.

Third, it should be noted that Barrett and Tokunaga are dissimilar. More specifically, Barrett is attempting to provide a qualitative indication of a download time estimate, while Tokunaga is attempting to maximize a data transmission rate for a video transmission while taking into account the limitations of the network medium between the transmitter and receiver. Given the disparate purposes, it is respectfully submitted that Barrett and Tokunaga are non-analogous and one skilled in the art would not be motivated to combine these references in the manner suggested in the Office Action.

Accordingly, neither Barrett nor Tokunaga, whether taken singly or in combination, disclose or suggest the subject matter recited by independent claims 1, 20, 24, and 27. The Office Action additionally cites to Kraft and Leermakers, but these references, whether taken singly or in combination with Barrett or Tokunaga, also fail to disclose or suggest the subject matter recited by independent claims 1, 20, 24, and 27.

Claim 1, 20, 24, and 27 are believed to be allowable over the prior art of record. Depending claims 2-4, 6-10, 21-23, and 25-26 are also believed to be allowable for at least the same reasons as the independent claims.

Claims 38 and 42-45 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Tokunaga in view of Kraft and Barrett. These rejections are respectfully traversed.

Claim 38 recites, *inter alia*, “measuring, at a server, a length of time required to receive, at the wireless device, each of the one or more data files sent from the server; calculating, at the server, a data transfer rate for each of the one or more data files using the size of each of the one or more data files and the measured length of time required to receive each of the one or more data files; calculating, at the server, a combined data transfer rate using the data transfer rate of each of the one or more data files; estimating, at the wireless device, the length of time to download the download file using the combined data transfer rate and the received size of the

download file; and outputting, on the wireless device, quantitative indication of the length of time.”

Claim 44 recites, *inter alia*, “measuring, at a server, a length of time required for the wireless device to receive each of the one or more data files from the server; calculating, at the server, a data transfer rate for each of the one or more data files using the size of each of the one or more data files and the measured length of time required to receive each of the one or more data files; calculating, at the server, a combined data transfer rate using the data transfer rate of each of the one or more data files; estimating, by the wireless device, a length of time to download the download file using the combined data transfer rate and the received size of the download file; and displaying, at the wireless device, a quantitative indication of the length of time.”

Claim 45 recites, *inter alia*, “means for measuring, at a server, a length of time required to receive each of the one or more data files; means for calculating, at the server, a data transfer rate for each of the one or more data files using the size of each of the one or more data files and the measured length of time required to receive each of the one or more data files; means for calculating, at the server, a combined data transfer rate using the data transfer rate of each of the one or more data files; and means for estimating, at the wireless device, the length of time to download the download file using the combined data transfer rate and the received size of the download file.”

The Office Action states, with respect to independent claims 38 and 44-45, that Tokunaga discloses a server measuring an amount of time required to receive one or more data files. However, as previously noted, Tokunaga discloses a system which sends a data file on a round trip, i.e., from the server to a client and from that client back to the server. It is this round trip that is measured by the server to determine the data transfer rate. In contrast, claims 38 and 44-45 have been amended to clarify that the claimed invention measures at the server, a time required for the server to transmit a file from the server to the client. Additionally, Tokunaga also fails to disclose or suggest that one of the data files includes the size of the download file. Tokunaga further fails to disclose estimating a download time for the download file based on a combined transfer rate achieved over a series of data file including a data file which stores the size of the data file.

Kraft discloses a system for managing downloads. More specifically, Kraft discloses a server for providing download to multiple clients. In order to avoid unduly impacting download services in progress to currently connect clients, Kraft discloses a process 300 for handling requests from a newly client. More specifically, as can be seen in Fig. 3A, the process 300 is a method which postpones servicing the requests of a newly connected client when the server load is above a predetermined threshold. See, e.g., Fig. 3A at steps 304, 308, and 310. In this manner, a new download process is not started by the server if the server load indicates that starting such a download would likely degrade the download speeds of the currently connected clients.

The Office Action cites to column 6, line 56 – column 7, line 24 as evidence that Kraft teaches that the size of a requested download file and the data transfer rate is used to estimate the length of time to download the download file. This passage of Kraft is related to step 316 of process 300. This passage states that the service manager uses the following information to calculate an estimated start time and an estimate completion time for the newly requested download: (1) information regarding downloads currently taking place; (2) information regarding downloads preceding the current request which have been requested but not yet started; and (3) information regarding current download request. Kraft further states that an API call may be used to obtain the current data transfer rate. Note that this transfer rate corresponds to the transfer rates across a plurality of simultaneous downloads occurring at the server. Thus, the Office Action is correct insofar as the determination made by Kraft involves both data size and data transfer rate.

However it should be noted that the data transfer rate measure by Kraft is the data transfer rate of multiple current downloads, while the subject matter recited by independent claims 28, 38, 44, and 45 relate to estimating a data transfer rate for a download file by measuring, at the server, the data transfer rate of one or more data files, where at least one of the data files includes the size of the data file to be transferred.

The Office Action also cites to Barrett, for its disclosure regarding receiving a size of the download file to be transferred. However, Barrett does not disclose that the size of the download file is stored in one or more data files which is transferred previously the download of the

download file. Further, as discussed above, Barrett also fails to disclose or suggesting measuring the data transfer rate of the data file at the server.

Accordingly, neither Tokunaga, Kraft, nor Barrett, whether taken singly or in combination, disclose or suggest the subject mater recited by independent claims 38 and 44-45.

Claim 38 and 44-45 are believed to be allowable over the prior art of record. Depending claims 42-43 are also believed to be allowable for at least the same reasons as the independent claims.

CONCLUSION

In light of the amendments contained herein, Applicants submit that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

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By:

Christopher S. Chow
Reg. No. 46,493
(858) 845-3249

QUALCOMM Incorporated
Attn: Patent Department
5775 Morehouse Drive
San Diego, California 92121-1714
Telephone: (858) 658-5787
Facsimile: (858) 658-2502